SOME NEW GENERA AND SPECIES OF WESTERN LEAFHOPPERS.

By E. D. Ball, University of Arizona, Tucson.

Parabolocratus atascaderus Ball n. sp.

Resembling *viridis* but slightly larger with a longer vertex in both sexes. Green with the male elytra tipped with smoky and the legs and a wedge on venter black. Length ♀ 8 mm.; ♂ 6 mm.

Vertex, slightly longer than in *viridis* in the female, definitely longer with the margins almost straight for some distance from the eye in the male, disc flat or concave, the apex slightly elevated, face but little inflated in the female with a much broader foliaceous margin anteriorly, than in *viridis*. Male face not inflated, profile straight. Elytra reaching the middle of last abdominal segment in the female with the apical cells very long. Male pygofers much longer than the triangular plates. In drying the plates are usually elevated so as to expose heavier and more strongly curved styles than those found in *viridis*.

Color. Female green the tip of the ovipositor scarlet, male green, a faint black line under the vertex margin and usually a still fainter one above, the apical cells smoky the legs and a wedge on venter black.

Holotype ♀ allotype ♂ and 14 paratypes taken by the writer north of Santa Margarita, California, June 23, 1931. The elongated foliaceous head in the male will at once distinguish this species from *viridis*. The narrower vertex, black legs and venter will separate it from *planus*.

Parabolocratus attenuatus var. **purpureus** Ball, n. var.

Similar in form and structure to the species, slightly narrower with a longer ovipositor in the female. Color a rich but slightly pale purple with a smoky cast in the males, the vertex paler, a white line on either side from the apex of vertex to the middle of costa omitting the eyes; below with a scarlet tinge in the females, smoky in the males.

Holotype ♂ March 22, 1931, allotype ♀ April 25, 1931, and 12 paratypes taken in March and April, 1931 and 1932, all taken in Sabino Canyon, Tucson, Arizona, by the author. This is a striking form in this group and is much more abundant than the broader green form described as *attenuatus*.

Kinonia Ball, n. gen.

Superficially resembling a small and extremely elongate *Athysanella,* but with the head produced into an extremely long almost *Cephalelus*-like cone and the elytra covering all but the last two segments of the abdomen. Pale straw color without pattern, the eyes dark.

Vertex nearly flat posteriorly where it has a median groove, joining the front before the eyes in forming a slightly flattened cone, without margins or groove. Eyes extremely large and long bordering more than half the pronotum and forming one-half the length of the cone-like head, which is from two to three times as long as wide. Ocelli extremely small, close to and in front of the eyes, connected to the antennal pits by a suture. Clypeus long, large, together with front forming a long wedge. Antennae long with little indications of a pit. Pronotum short, mostly enclosed by the eyes slightly emarginate in the middle posteriorly, running around beneath the body laterally as in *Neocoelidia* but lacking the lateral carinae behind the eyes. Elytra long and very narrow inclined to separate posteriorly exposing one or two segments of the long abdomen. Venation obscure, simple, resembling *Euscelis.* Abdomen elongate with extreme elongation of the pygofers and ovipositor as in some species of *Athysanella.*

Type of the genus *Kinonia elongata* n. sp. This appears to be an Acucephaline genus with no close affinities in our fauna. The nymphs have even longer heads than the adults.

Kinonia elongata Ball, n. sp.

Somewhat resembling *Athysanella acuticauda* but much smaller and slenderer, as pale and inconspicuous as a *Lonatura,* small, elongate, straw-colored with extremely long head and ovipositor. Length ♀ 4 mm., ♂ 2.8 mm., width .8 mm. Structure of the genus; the vertex 2½ times longer than width between the eyes, more than twice the length of pronotum, apex of head an elongated cone slightly flattened on top, face strongly transversely arched without lateral rugae or markings, clypeus slightly exceeding genae. Elytra shorter than abdomen, roundingly narrowing to the divergent apices, subhyaline with venation obscure, simple, resembling *Euscelis* with the outer anteapical irregular or wanting the apical cells short. Female segment broad, slightly shorter than preceding the posterior margin slightly emarginate, pygofers extremely elongate four or five times the length of the segment and exceeded by one-third the length of the ovipositor. Male genitalia resembling that found in

Athysanella, the pygofers laterally compressed and curving downwards at apex thus depressing the blunt spoon-shaped plates, valve obtusely rounding one-half the length of the plates.

Holotype ♀ and allotype ♂ taken August 10, together with eight paratypes taken July 14 and August 10, in the author's collection. Eight paratypes in the collection of the Kansas University, taken July 14, all taken in Sabino Canyon of the Santa Catalina Mountains, Tucson, in 1932, by R. H. Beamer and the author. This striking species was found exclusively on the "pagoda" grass *Muhlenbergia dumosa* growing on the steep walls of the canyon. On July 14 nymphs were in abundance with a few fresh adults, by August 10 they were mostly adult.

Ionia Ball, n. gen.

Allied to *Nionia* and *Xestocephalus* in the conical head with the ocelli far from the eyes and the strong deltocephaloid venation. Short stout, superficially resembling a minute long-winged testaceous *Driotura* but structurally quite distinct.

Head short obtusely conical about half the length of the pronotum the vertex and face rounding over in a uniform curve. As seen from above but little longer in the middle than against the eyes with the large ocelli on the (obsolete) margin nearly two-thirds of the distance from the eye to the apex. Front longer than wide, slightly constricted between the antennae, broadly roundingly narrowing to the long almost parallel margined clypeus, the parabolic apex of which much exceeds the genae. Genae very narrow almost straight from the middle of the eye to the clypeus. Lorae extremely long and narrow. Pronotum about twice wider than long the lateral margin eliminated the oblique margins joining the angle of the eye. Scutellum unique in possessing a broad, obtusely rounding plate-like structure that projects from under the pronotum, and laterally exposes the normal margin which terminates on each side in a slight white tipped tooth suggestive of the structure found in the *Centrotinae.* Elytra very broad and short, globose, enclosing the abdomen, coriaceous with the venation obscure. The costal margin sharply deflexed with a carinae at the angle on the basal half.

Type of the genus *Ionia triunata* n. sp.

In *Nionia* the head is scarcely more than a narrow band around an exceedingly large pronotum, the ocelli are nearer the eye than the apex and there are rows of setigerous punctures paralleling

the nervures. In *Xestocephalus* the front is exceedingly broad the lorae semicircular, the genae broad and angled and the elytra are long, subhyaline without a deflexed costal portion.

Ionia triunata Ball, n. sp.

Structure of the genus. Short stout cinnamon brown, with a smoky apical margin to the elytra. Length ♀ 2.4 mm., ♂ 2 mm., width 1.2 mm.

Slightly resembling *Xestocephalus brunneus* but smaller and stouter with short coriaceous, gibbous elytra and shorter head and a narrow face. Vertex one-third as long as its basal width, face slightly and regularly convex in profile, front slightly transversely convex, width across antennae less than its length instead of the reverse as in *Xestocephalus.* Genae twice longer than wide instead of nearly semicircular, clypeus narrowing towards apex instead of constricted near base. Pronotum deeply rugulose; one-half its length included in the curve of the vertex. Eyes relatively small but exceeding the pronotum in width instead of very small and narrower than the pronotum as in *Xestocephalus.* Elytra very broad and short the costal margin strongly curved as in *Clastoptera.* Venation simple regular, one cross-nervure, the anteapical cells long, quadrangular, the apical cells almost square. Female segment broad and short usually arched so as to appear emarginate and slightly notched, pygofers stout. Male plates broad almost quadrangular, not quite equaling the pygofers. Valve very short and broad.

Holotype ♀ August 10, allotype ♂ July 14, 6 paratypes of the same dates in the author's collection and 8 paratypes in the Snow collection, Kansas University, all taken in Sabino Canyon, Tucson, Arizona in 1932 by Dr. R. H. Beamer and the writer, from a small red mat *Euphorbia.* Two females from the Baboquivari Mountains, Sept. 29, 1931 (Ball) are probably this species but have the head dark brown to black.

Stirellus beameri Ball n. sp.

Form and structure of *obtutus* nearly, larger creamy with 5 brown bands on vertex and pronotum and 5 brown stripes on each elytron. Length ♀ 3.7 mm., ♂ 3.2 mm.

Vertex similar to *obtutus* slightly acutely conically pointed slightly longer than its basal width, eyes extremely long enclosing more than half the pronotum. Elytra as in *bicolor* just covering abdomen, but not the ovipositor, female segment short transverse almost parallel margined as in *obtutus* the

ovipositor exserted one-fourth its length the tip red. Male plates together bluntly spoon-shaped over the compressed pygofers one-third longer than the valve with a submarginal row of stiff spines.

Color. Vertex white a black spot at apex, a band in front of eyes and a broader one before the base. Pronotum creamy an anterior and a posterior brown band the former with a narrower black one superimposed. Elytra brown with a broad stripe inside the costa, a broader one inside the claval suture and the nervures white. The apical region cinnamon bounded by two narrow black lines. Face pale washed with tawny, about 6 brown arcs on each side the front, two of them united and emphasized below the apical spot. A pair of large black spots behind the antennae. Four black spots on the apical tergum hidden by the elytra.

Holotype ♂ and 8 paratypes in the collection of the author. Allotype ♀ and 8 paratypes in the Snow Entomological Collection, Kansas University, all taken by R. H. Beamer and the writer on the east slopes of the Santa Rita Mountains, July 11 and 12, 1932. This striking species superficially resembles *Commellus comma* in color and pattern. Named in honor of Dr. R. H. Beamer whose abilities as a collector are only exceeded by the excellence of his interpretation of the genus *Erythroneura.*

Exitianus armus Ball n. sp.

Resembling *obscurinervis* but shorter and broader with a broad uniformly rounding vertex and a pair of large round black spots on the margins of the pronotum. Length ♀ 4.5 mm., ♂ 3.7 mm.

Vertex uniformly rounding the anterior and posterior margins parallel instead of it being obtusely conically pointed as in *obscurinervis,* broadly rounding to front which is definitely narrower than in *obscurinervis.* Clypeus expanding towards apex rather than narrowing as in that species. Pronotum broader and shorter with the posterior margin concavely excavated. Elytra slightly shorter with the venation similar. Female segment similar, the ovipositor but slightly longer than the pygofers. Male plates much broader at base, together triangularly narrowing almost to a point and then extended as long almost thread-like upturned apices instead of narrow at the base and uniformly sloping to the apex.

Color. Vertex creamy a pair of large round black spots against the ocelli and a minute pair within and behind them. Pronotum milky with four brown stripes on the disc and a pair of black spots on the lateral margins. Scutellum creamy with three pale brown stripes. Elytra milky subhyaline, the

nervures narrowly black. Face and below pale a pair of spots or crescents on upper part of front, a dot above and one below antenna brown. Dark examples may have a pair of spots in each basal angle of vertex and brown arcs on front.

Holotype ♀ and allotype ♂ Tucson, Arizona, April 20, 1930, ten paratypes, Superior, July 31, 1930, and Tucson from April 12 to September 22, 1930, all collected by the writer. A distinct little species limited to a single food plant, the Desert Hackberry.

NEW RECORDS OF HETEROPTERA FROM ARKANSAS.

By J. R. de la Torre-Bueno, White Plains, N. Y.

Recently I received from Miss Louise Knobel, of Hope, Ark., the following species taken there by her on the dates and under the conditions mentioned. It should be noted that none of the species appears to have been taken in the State; at least, neither Blatchley in his Heteroptera of the Eastern United States, nor Van Duzee in his Catalogue lists them from Arkansas. The species are arranged in the order of Hemiptera of Connecticut.

Corythucha cydoniae Fitch.—September 22, 1931; 7 specimens beaten from oak (*Quercus* sp.). This is an inhabitant of *Crataegus,* so far as heretofore known. Blatchley states it is not recorded south of Maryland; and VanDuzee gives it only from New York.

Cnemodus mavortius Say.—Taken at light, September 9, 1931; seems a wide-spread species, but no specific Arkansas records.

Corizus hyalinus Fabr.—From *Aster,* October 10, 1931; a cosmopolitan species, with no Arkansas records found.

Brochymena quadripustulata Fabr.—September 10 and 19, 1931; June 1, 1932, a number at light; December 1, 1931, a couple on a wall. This species is ordinarily found on bark. There are no specific Arkansas records, although it is common and widespread.

Banasa dimidiata Say.—At light on June 20 and 26, 1932. It does not seem to be known from the State.

Homoemus parvulus Germar.—Taken by sweeping flowers, May 5, 1932. This seems to be the first record from the State.